

Appendix 1

Annex 1

Structure of the research programmes of the fifth framework programme 1998-2002 (indirect actions) and their thematic priorities according to their workprogrammes

Thematic priorities are subject to regular updates in line with the revision of the workprogrammes.

Proposers should always check that they use the latest version.

Latest information on programmes' thematic priorities are available on the following Website:

http://www.cordis.lu/fp5/src/forms_a.htm

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**Structure of the research programmes of the fifth framework programme 1998-2002:
(indirect actions):**

1. 5th EC Framework programme

1.1. *First activity*

QOL Quality of Life and Management of Living Resources

IST User-friendly Information society

GROW Competitive and Sustainable Growth

EESD Energy, Environment and Sustainable Development

1.2. *Second activity*

INCO Confirming the International Role of Community Research

1.3. *Third activity*

IPS Promotion of Innovation and Encouragement of SME participation

1.4. *Fourth activity*

IHP Improving the Human Research Potential & the Socio-Economic Knowledge Base

2. Euratom Framework Programme

NUC Nuclear Energy

**Structure of the thematic priorities of the fifth framework programme 1998-2002:
(indirect actions):**

1 EC Framework programme

1.1 First activity

QOL Quality of Life and Management of Living Resources

QOL-2000-1 Key action Food, Nutrition and Health

QOL-2000-1.1 Development of safe and flexible and new and/or improved manufacturing processes and technologies

QOL-2000-1.1.1 Novel and improved biological raw materials for high quality food

QOL-2000-1.1.2 Advanced and optimised food technologies, packaging systems and process control

QOL-2000-1.1.3 Quality monitoring and traceability throughout the food chain

QOL-2000-1.2 Development of tests to detect and processes to eliminate infectious and toxic agents throughout the food chain

QOL-2000-1.2.1 Improved understanding and control of contamination conditions arising along the entire food chain from primary producer to consumer

QOL-2000-1.2.2 Rapid detection tests particularly for pathogens and hormones.

QOL-2000-1.2.3 New and safer methods of food production and distribution

QOL-2000-1.2.4 New methodologies for assessing microbial, chemical and allergenic risks and exposures

QOL-2000-1.3 Research into the role of food in promoting and sustaining health with respect to diet and nutrition, toxicology, epidemiology, environmental interaction, consumer choice and public health

QOL-2000-1.3.1 Consumer needs, attitudes and responses with regard to food products, food processing and labelling

QOL-2000-1.3.2 Role and impact of food on physiological functions, physical and mental performance

QOL-2000-1.3.3 Particular nutritional needs of defined population groups

QOL-2000-1.3.4 Links between diet and chronic diseases and disorders including the genetic factors involved

QOL-2000-2 Key action Control of Infectious Diseases

QOL-2000-2.1 Development of improved or novel mono-component, multi-component and combined vaccines

QOL-2000-2.1.1 New vaccination strategies

QOL-2000-2.1.2 Discovery phase and pre-clinical development of preventive and therapeutic vaccines

QOL-2000-2.1.3 Clinical evaluation of vaccines

QOL-2000-2.2 Strategies to identify and control infectious diseases

QOL-2000-2.2.1 Treatment of, and protection against, human and animal infectious diseases

QOL-2000-2.2.2 Antimicrobial drug resistance and changes in virulence

QOL-2000-2.2.3 Diagnostic tests for humans and animals

QOL-2000-2.3 Aspects of public health and care delivery systems

QOL-2000-2.3.1 Risk assessment, transmission and surveillance

QOL-2000-2.3.2 Methodologies for medicinal product safety surveillance in the market place

QOL-2000-2.3.3 Organisational and economic aspects of human and animal health

QOL-2000-3 Key action The "Cell factory"

QOL-2000-3.1 Improving the diagnostic and therapeutic arsenal for health care

QOL-2000-3.1.1 Development of new diagnostics

QOL-2000-3.1.2 Therapeutic substances

QOL-2000-3.1.3 Therapeutic strategies

QOL-2000-3.1.4 Novel *in-vitro* testing as alternatives to animal testing

QOL-2000-3.2 Improving environmental sustainability

QOL-2000-3.2.1 New bioprocesses for industrial efficiency, to avoid pollution, make use of bioaccumulable wastes and by-products, and treat wastewater

QOL-2000-3.2.2 Bioassays and biosensors.

QOL-2000-3.2.3 Biodegradation of recalcitrant chemicals and bioremediation

QOL-2000-3.2.4 Biodiversity and ecological dynamics of natural and introduced populations

QOL-2000-3.2.5 Methods and strategies for safe use of new biomolecules and bioprocesses, for identifying recombinant organisms and their residues in the environment and assessing their impact on human and animal health, to support Community policies

QOL-2000-3.3	New biological and biotechnological products and processes for agro-industry, agri-food and high value added chemicals
QOL-2000-3.3.1	Exploiting the cellular and molecular characteristics of organisms
QOL-2000-3.3.2	High value-added products and processes involving / derived from micro-organisms, plants and animals.
QOL-2000-3.3.3	Functional biomolecules and biocatalysts.
QOL-2000-3.3.4	Identification and sustainable use of metabolic and genetic diversity as a source of new valuable products
QOL-2000-4	<u>Key action Environment and Health</u>
QOL-2000-4.1	Diseases and allergies related to or influenced by the environment, their prevention and treatment
QOL-2000-4.1.1	Analysis and quantification of the impact of environmental factors on human health.
QOL-2000-4.1.2	Assessment of the relative importance of, and the interactions between, factors impinging on health.
QOL-2000-4.1.3	Development of an integrated approach to risk management taking into account environmental and public health aspects
QOL-2000-4.2	Development of new methods of diagnosis, risk assessment and processes to reduce causes and harmful environmental health effects
QOL-2000-4.2.1	Development of methods to assess environmental hazards including mixed exposures, cumulative and low dose effects
QOL-2000-4.2.2	Improvement of predictive toxicity testing and mechanism-based risk assessment consistent with the aim of the reduction and eventual replacement of animal testing
QOL-2000-4.2.3	Improved methods and technologies for long and short-term exposure and effects assessment including biomarkers (and bio-indicators) of environmental exposure, and susceptibility to environmental agents
QOL-2000-5	<u>Key action Sustainable Agriculture, Fisheries and Forestry, and integrated development of rural areas including mountain areas</u>
QOL-2000-5.1	New and sustainable systems of production, including breeding methods and exploitation in agriculture, fisheries and aquaculture, taking into account profitability, the sustainable management of resources, product quality and employment as well as animal health and welfare
QOL-2000-5.1.1	Sustainable agriculture
QOL-2000-5.1.2	Sustainable fisheries and aquaculture
QOL-2000-5.2	The integrated production and exploitation of biological materials for non-food uses
QOL-2000-5.3	Sustainable and multi-purpose utilisation of forest resources; the integrated forestry-wood chain
QOL-2000-5.3.1	Multifunctional management of forests
QOL-2000-5.3.2	Strategies for the sustainable and multipurpose utilisation of forest resources; the forestry-wood chain
QOL-2000-5.4	Support for common policies – Development of methods of control, surveillance and protection including protection of land and prevention of soil erosion. Pre-legislative research designed to provide a scientific basis for Community legislation
QOL-2000-5.4.1	Community agriculture and the international context
QOL-2000-5.4.2	CAP measures and related activities including agri-environmental and socio-economic aspects
QOL-2000-5.4.3	Monitoring and enforcement of the CFP
QOL-2000-5.4.4	Social and economic basis of the CFP
QOL-2000-5.5	New tools and models for the integrated and sustainable development of rural and other relevant areas
QOL-2000-5.5.1	Analysing rural situations, changes and trends
QOL-2000-5.5.2	Conceptualising integrated development of rural and other relevant areas
QOL-2000-5.5.3	Assessing rural and coastal development performance and policies
QOL-2000-6	<u>Key action The Ageing Population and Disabilities</u>
QOL-2000-6.1	Age-related illnesses and health problems
QOL-2000-6.2	Determinants of healthy ageing and of well-being in old age
QOL-2000-6.3	Demographic and social policy aspects of population ageing
QOL-2000-6.4	Coping with functional limitations in old age
QOL-2000-6.5	Health and social care services to older people
QOL-2000-7	<u>Chronic and Degenerative Diseases, Cancer, Diabetes, Cardiovascular Diseases and Rare Diseases</u>

QOL-2000-7.1	Elucidation of the common underlying pathogenic mechanisms involved in disease initiation, progression and maintenance
QOL-2000-7.2	Evaluation of conventional and non-conventional therapies through multinational, large scale studies/trials (open in 2001)
QOL-2000-7.3	Optimised use of relevant databases, registries, repositories (open in 2001, but see area 14)
QOL-2000-8	<u>Research into genomes and diseases of genetic origin</u>
QOL-2000-8.1	Genome analysis
QOL-2000-8.2	Functional genomics and proteomics
QOL-2000-8.3	Development of novel expression systems, model organisms, mutant, transgenic and hybrid organisms (open in 2001)
QOL-2000-8.4	Development and application of underpinning biochemistry, biophysical, statistical and computational approaches (open in 2001, but see area 14)
QOL-2000-9	<u>Neurosciences</u>
QOL-2000-9.1	Cell communication
QOL-2000-9.2	Brain theories, computational neuroscience and neuroinformatics
QOL-2000-9.3	Brain development, disorders and repair and their clinical, epidemiological and social implications (open in 2001)
QOL-2000-9.4	Behaviour, cognition and functional mapping of the brain (open in 2001)
QOL-2000-10	<u>Public health and health services research</u>
QOL-2000-10.1	Health services research and health and safety at work
QOL-2000-10.2	Fighting drug related problems
QOL-2000-11	<u>Research relating to the persons with disabilities</u>
QOL-2000-11.1	Determinants of impairment, disability and handicap
QOL-2000-11.2	Methodologies for the assessment of quality of life
QOL-2000-11.3	Innovative technological research for the rehabilitation and assistance
QOL-2000-11.4	Health and social care delivery
QOL-2000-12	<u>Bioethics</u>
QOL-2000-12.1	Ethical aspects of scientific and technological developments
QOL-2000-12.2	Ethical framework for life sciences
QOL-2000-12.3	Public policies, law and bioethics
QOL-2000-12.4	Bioethics infrastructures and methodologies
QOL-2000-13	<u>Socio-economic aspects of life sciences and technologies</u>
QOL-2000-13.1	Development of indicators and knowledge bases relevant to public policy making
QOL-2000-13.2	Managing technology in society
QOL-2000-13.3	Analysis of social and economic driving forces and of new opportunities in the bioindustries
QOL-2000-14	<u>Support for research infrastructures</u>
QOL-2000-14.1	Biological collections
QOL-2000-14.2	Biological information resources
QOL-2000-14.3	Clinical research facilities
QOL-2000-14.4	Pre-clinical research facilities
QOL-2000-14.5	Facilities for aquaculture and fishery research
IST	User-friendly Information society (IST)
IST-1999-1.3.1	System and Services for independent living
IST-2000-1	<u>Key action 1: Systems and services for the citizen</u>
IST-2000-1.1	Health
IST-2000-1.1.1	Intelligent environment for Health Promotion and Disease Prevention
IST-2000-1.1.2	Intelligent environment for patients
IST-2000-1.1.3	Advanced interactive environment for doctors and nurses
IST-2000-1.1.4	Best Practice and Demonstration actions in Regional Healthcare Networks
IST-2000-1.2	Persons with special needs, including the disabled and the elderly
IST-2000-1.2.1	Intelligent assistive systems and interfaces to Compensate for Functional Impairments.
IST-2000-1.3	Administrations
IST-2000-1.3.1	Smart Government 2005-2010
IST-2000-1.4	Environment
IST-2000-1.4.1	Intelligent environmental management, risk and emergency systems
IST-2000-1.4.2	Data Fusion and Smart Sensor Technologies for Humanitarian Demining

- IST-2000-1.5 Transport and tourism
- IST-2000-1.5.1 Intelligent transport infrastructures
- IST-2000-1.5.2 Intelligent Vehicle Systems
- IST-2000-1.5.3 Best Practice and Demonstration actions in electronic fee collection
- IST-2000-1.5.4 Intelligent Systems for Improved Tourism and Travel Services
- IST-2000-2 Key action 2: New Methods of Work and Electronic Commerce
- IST-2000-2.1 Work spanning Key action 2
- IST-2000-2.1.1 New Perspectives for Work and Business
- IST-2000-2.1.2 Knowledge Management for eCommerce and eWork
- IST-2000-2.1.3 Mobile and Ubiquitous eCommerce and eWork
- IST-2000-2.1.4 Early Exploitation and Adoption of eCommerce and eWork Solutions and Practices
- IST-2000-2.1.5 Promoting Broad Adoption of eCommerce & eWork in Regional and Sectoral Settings
- IST-2000-2.1.6 Specific Support Measures
- IST-2000-2.2 Flexible, mobile and remote working methods and tools
- IST-2000-2.2.1 Sustainable Workplace Design
- IST-2000-2.2.2 “Smart” Organisations
- IST-2000-2.3 Management systems for suppliers and consumers
- IST-2000-2.3.1 Dynamic Value Constellations
- IST-2000-2.4 Information and network security and other confidence-building technologies
- IST-2000-2.4.1 Technology Building Blocks for Trust and Security
- IST-2000-2.4.2 Large-Scale Trust and Confidence
- IST-2000-3 Key action 3: Multimedia Content and Tools
- IST-2000-3.1 Interactive publishing, digital content and cultural heritage
- IST-2000-3.1.1 Authoring interactive Web content
- IST-2000-3.1.2 Personalising content
- IST-2000-3.1.3 Trials and test-beds for digital content authoring and personalising systems
- IST-2000-3.1.4 Access to digital collections of cultural and scientific content
- IST-2000-3.1.5 Trials on new access modes to cultural and scientific content
- IST-2000-3.1.6 Virtual representations of cultural and scientific objects
- IST-2000-3.2 Education and training
- IST-2000-3.2.1 School of tomorrow
- IST-2000-3.2.2 The learning citizen
- IST-2000-3.2.3 Trials and best practice addressing advanced solutions for on-the-job training in SMEs
- IST-2000-3.3 Human language technologies
- IST-2000-3.3.1 Natural interactivity
- IST-2000-3.3.2 Cross-lingual information management and knowledge discovery
- IST-2000-3.3.3 Multilingual communication services and appliances
- IST-2000-3.3.4 Trials and best practice in multilingual e-service and e-commerce
- IST-2000-3.4 Information access, filtering, analysis and handling
- IST-2000-3.4.1 Content-processing for domestic and mobile multimedia platforms
- IST-2000-3.4.2 Information visualisation
- IST-2000-3.4.3 Trials and best practice in information access, filtering, analysis and handling
- IST-2000-3.5.1 Working groups and dissemination and awareness actions
- IST-2000-4 Key action 4: Essential Technologies and Infrastructures
- IST-2000-4.1 Implications Assessment
- IST-2000-4.1.1 Implications Assessment
- IST-2000-4.2 Computing, Communications and Networks
- IST-2000-4.2.1 Distributed systems and services provision
- IST-2000-4.2.2 Real-time systems
- IST-2000-4.2.3 Network integration, interoperability and interworking
- IST-2000-4.2.4 Terabit core networks
- IST-2000-4.2.5 Computing, communications and networks – take-up measures
- IST-2000-4.3 Technologies and Engineering for Software, Systems and Services
- IST-2000-4.3.1 Distributed development of software and systems
- IST-2000-4.3.2 Software-Engineering for generic end-user services
- IST-2000-4.3.3 User-centred interaction and functionality design
- IST-2000-4.3.4 Software, systems and services – take-up measures
- IST-2000-4.3.5 Software, systems and services –thematic networks, accompanying measures
- IST-2000-4.4 Real-time and large-scale simulation and visualisation technologies
- IST-2000-4.4.1 Real-time simulation and visualisation technologies and services

- IST-2000-4.4.2 Mixed realities and new imaging frontiers for innovative applications and services
- IST-2000-4.4.3 Real-time simulation and visualisation, mixed reality – take-up measures
- IST-2000-4.5 Mobile and personal communications and systems, including satellite-related systems and services
 - IST-2000-4.5.1 Re-configurable radio systems & networks
 - IST-2000-4.5.2 Terrestrial wireless systems and networks
 - IST-2000-4.5.3 Integrated satellite systems and services
 - IST-2000-4.5.4 Fourth Generation system and network concepts for wireless communications
 - IST-2000-4.5.5 Mobile and personal communications and satellite systems – take-up measures
- IST-2000-4.6 Interfaces making use of the various senses
 - IST-2000-4.6.1 Advanced displays and sensors to support system and service level interfaces
 - IST-2000-4.6.2 User and service interfaces and buffers for seamless end-to-end services
 - IST-2000-4.6.3 Advanced displays and sensors – take-up measures
 - IST-2000-4.6.4 Advanced interfaces – take-up measures
- IST-2000-4.7 Peripherals, sub-systems and microsystems
 - IST-2000-4.7.1 Peripherals and networked embedded technologies
 - IST-2000-4.7.2 Subsystems
 - IST-2000-4.7.3 Microsystems
 - IST-2000-4.7.4 Peripherals technologies – take-up measures
 - IST-2000-4.7.5 Subsystems – take-up measures
 - IST-2000-4.7.6 Microsystems – take-up measures
- IST-2000-4.8 Microelectronics - optoelectronics
 - IST-2000-4.8.1 Microelectronics design and test
 - IST-2000-4.8.2 Application-specific microelectronics
 - IST-2000-4.8.3 Industrial microelectronics technologies: processes, equipment and materials
 - IST-2000-4.8.4 Optoelectronic technologies
 - IST-2000-4.8.5 Advanced micro- and opto-electronics
 - IST-2000-4.8.6 Microelectronics design and test – take-up measures
 - IST-2000-4.8.7 Application-specific microelectronics and optoelectronics – take-up measures
 - IST-2000-4.8.8 Industrial microelectronics technologies: processes, equipment and materials – take-up
 - IST-2000-4.8.9 Research training in microelectronics – accompanying measures
- IST-2000-5 Cross Programme Actions (CPA)
 - IST-2000-5.1.1 CPA1: Extended Home environments
 - IST-2000-5.1.2 CPA2: User friendliness, Human factors, multilingual and multi-modal dialogue modes
 - IST-2000-5.1.3 CPA3: Ubiquitous and intelligent info-mobility and geo-information systems
 - IST-2000-5.1.4 CPA4: Large scale systems survivability
 - IST-2000-5.1.5 CPA5: Smart cards
 - IST-2000-5.1.6 CPA6: Next generation networks
 - IST-2000-5.1.7 CPA7: Socio-Economic Analysis for the Information Society
 - IST-2000-5.1.8 CPA8: Statistical tools, methods & applications for the Information Society
- IST-2000-6 Generic activities: Future and emerging technologies
 - IST-2000-6.1.1 Open domain
 - IST-2000-6.2.1 P1: The disappearing computer
 - IST-2000-6.2.2 P2: Neuroinformatics for “living” artefacts
- IST-2000-7 Support for research infrastructures: Research Networking
 - IST-2000-7.1.1 RN1: Interconnection of Research Networks
 - IST-2000-7.1.2 RN2: End-to-End Application Experiments
 - IST-2000-7.1.3 RN3: Test-beds for Integration of Access Technologies
 - IST-2000-7.1.4 RN4: Test-beds for Future network technologies
- IST-2000-8 IST support activities
 - IST-2000-8.1.1 Project Clusters
 - IST-2000-8.1.2 Networks of Excellence and working groups
 - IST-2000-8.1.3 Channelling of Standardisation and Interoperability initiatives
 - IST-2000-8.1.4 Improving Human Capital in IST-Research (IHC)
 - IST-2000-8.1.5 Enabling RTD Co-operation with Newly Associated States
 - IST-2000-8.1.6 Enabling RTD Co-operation with 3rd Counties
- GROW** **Competitive and Sustainable Growth**
 - GROW-2000-1 Key Action Innovative Products, Processes and Organisation
 - GROW-2000-1.1 Efficient production, including design, manufacturing and control

- GROW-2000-1.2 Intelligent production
- GROW-2000-1.3 Eco-efficient processing and design
- GROW-2000-1.4 Organisation of production and work
- GROW-2000-1.5 **TRA “products”**: evolutionary value-added and resource-saving products-services, including miniaturised systems
- GROW-2000-1.6 **TRA “machines”**: new generation of machinery, production equipment and systems for manufacturing
- GROW-2000-1.7 **TRA “extended enterprise”**: the knowledge based extended manufacturing enterprise
- GROW-2000-1.8 **TRA “modern factory”**: customer oriented, high tech, agile and towards zero-waste production
- GROW-2000-1.9 **TRA “infrastructure”**: safe and cost effective industrial facilities, construction and civil infrastructures
- GROW-2000-2 Key Action Sustainable Mobility and Intermodality
- GROW-2000-2.1 Socio-economic scenarios for mobility of people and goods
 - GROW-2000-2.1.1 Quantitative tools for decision-making
 - GROW-2000-2.1.2 Driving forces in transport
 - GROW-2000-2.1.3 Policies for sustainable mobility
- GROW-2000-2.2 Infrastructures and their interfaces with transport means and systems
 - GROW-2000-2.2.1 Infrastructure development and maintenance
 - GROW-2000-2.2.2 Environment
 - GROW-2000-2.2.3 Safety
 - GROW-2000-2.2.4 Security
 - GROW-2000-2.2.5 Human factors
- GROW-2000-2.3 Modal and intermodal transport management systems
 - GROW-2000-2.3.1 Traffic management systems
 - GROW-2000-2.3.2 Transport and mobility services
 - GROW-2000-2.3.3 Second generation satellite navigation and positioning systems
- GROW-2000-3 Key Action Land Transport and Marine Technologies
- GROW-2000-3.1 Critical technologies for road and rail transport
 - GROW-2000-3.1.1 Efficient, clean and intelligent road and rail transport vehicle technologies
 - GROW-2000-3.1.2 Innovative and safe road and rail transport vehicle concepts
 - GROW-2000-3.1.3 Human/vehicle interaction
- GROW-2000-3.2 Critical marine technologies
 - GROW-2000-3.2.1 Efficient, safe and environmentally friendly ships and vessels
 - GROW-2000-3.2.2 Maximising interoperability and vessel performances
 - GROW-2000-3.2.3 Innovative technologies for the monitoring, exploration and sustainable exploitation of the sea
- GROW-2000-3.3 **TP1**: New land transport vehicle concepts; Enhanced systems efficiency
- GROW-2000-3.4 **TP2**: Advanced concepts for ships and vessels; Competitive shipbuilding
- GROW-2000-3.5 **TP3**: Enhanced design and manufacturing for road vehicles
- GROW-2000-3.6 **TP4**: Sustainable and modular train
- GROW-2000-3.7 **TP5**: Safe, efficient and environmentally friendly vessels and platforms
- GROW-2000-3.8 **TP6**: Efficient interoperability and transshipment
- GROW-2000-4 Key Action New Perspectives in Aeronautics
- GROW-2000-4.1 Reducing aircraft development cost and time to market
 - GROW-2000-4.1.1 Advanced design systems and tools
 - GROW-2000-4.1.2 Manufacturing
 - GROW-2000-4.1.3 Product quality control
- GROW-2000-4.2 Improving aircraft efficiency
 - GROW-2000-4.2.1 Aerodynamics
 - GROW-2000-4.2.2 Structures and materials application
 - GROW-2000-4.2.3 Propulsion
 - GROW-2000-4.2.4 Systems and equipment
 - GROW-2000-4.2.5 Configurational and interdisciplinary aspects
- GROW-2000-4.3 Improving environmental friendliness of aircraft
 - GROW-2000-4.3.1 Low pollutant emissions
 - GROW-2000-4.3.2 External noise
 - GROW-2000-4.3.3 Cabin environment
- GROW-2000-4.4 Improving operational capability and safety of aircraft
 - GROW-2000-4.4.1 Air traffic management (ATM) related air borne systems

- GROW-2000-4.4.2 Operational Maintenance
- GROW-2000-4.4.3 Accident prevention
- GROW-2000-4.4.4 Accident survivability
- GROW-2000-4.5 **TP1:** Low-cost, low-weight primary structures
- GROW-2000-4.6 **TP2:** Efficient and environmentally friendly aero-engine
- GROW-2000-4.7 **TP3:** Novel rotary-wing aircraft configuration
- GROW-2000-4.8 **TP4:** More autonomous aircraft in the future air-traffic management system
- GROW-2000-4.9 **TP5:** Power-optimised aircraft
- GROW-2000-4.10 **TP6:** Low external noise aircraft
- GROW-2000-4.11 **TP7:** Low noise aircraft cabin
- GROW-2000-4.12 **TP8:** Novel fixed-wing aircraft configuration
- GROW-2000-4.13 **TP9:** Integrated and modular aircraft electronic systems
- GROW-2000-5 RTD Activities of a Generic Nature : materials and their technologies for production and transformation and new and improved materials and production technologies in the steel field
- GROW-2000-5.1 Cross-cutting generic materials technologies
- GROW-2000-5.2 Advanced functional materials
- GROW-2000-5.3 Sustainable chemistry
- GROW-2000-5.4 Expanding the limits and durability of structural materials
- GROW-2000-5.5 Iron and steel production
- GROW-2000-5.6 Steel casting, rolling and downstream treatment
- GROW-2000-5.7 Steel utilisation
- GROW-2000-6 RTD Activities of a Generic Nature : Measurements and Testing
- GROW-2000-6.1 Instrumentation
- GROW-2000-6.1.1 Instrumentation in support of standardisation (**not foreseen**)
- GROW-2000-6.1.2 Sensors, screening systems and instruments for the fight against fraud
- GROW-2000-6.1.3 Instrumentation for improvement of quality
- GROW-2000-6.2 Methodologies for measurements and testing
- GROW-2000-6.2.1 Methodologies to support standardisation and Community policies
- GROW-2000-6.2.2 Measurement and testing anti-fraud methodologies
- GROW-2000-6.2.3 Measurement and testing methodologies in support of quality
- GROW-2000-6.3 Support to the development of certified reference materials (CRMs)
- GROW-2000-6.3.1 CRMs to support standardisation and Community policies
- GROW-2000-6.3.2 Reference substances and materials for anti-fraud
- GROW-2000-6.3.3 CRMs for traceability and calibration
- GROW-2000-7 Support to Research Infrastructures
- GROW-2000-7.1 Support activities to medium and large scale facilities
- GROW-2000-7.2 Setting up of virtual institutes
- GROW-2000-7.3 Reference databases
- GROW-2000-7.4 Measurement and quality management infrastructures

EESD.	Energy, Environment and Sustainable Development
Part A.	<u>Environment and Sustainable Development</u>
EESD-1999-1	<u>Key action Sustainable Management and Quality of Water</u>
EESD-1999-1.1	Integrated management and sustainable use of water resources at catchment scale
EESD-1999-1.1.1	Strategic planning and integrated management methodologies and tools at catchment scale
EESD-1999-1.1.2	Socio-economic aspects of sustainable use of water
EESD-1999-1.1.3	Operational management schemes and decision support systems
EESD-1999-1.2.	Ecological quality of freshwater ecosystems and wetlands
EESD-1999-1.2.1	Ecosystem functioning
EESD-1999-1.2.2	Ecological quality targets
EESD-1999-1.3	Treatment and purification technologies
EESD-1999-1.3.1	Management of water in the city
EESD-1999-1.3.2	Waste water treatment and re-use
EESD-1999-1.4	Pollution prevention
EESD-1999-1.4.1	Abatement of water pollution from contaminated land, landfills and sediments
EESD-1999-1.4.2	Combating diffuse pollution
EESD-1999-1.5	Surveillance, early warning and communication systems
EESD-1999-1.5.1	Pollution surveillance and control
EESD-1999-1.5.2	Improved flood and drought forecasting
EESD-1999-1.6	Regulation of stocks and technologies for arid and semi-arid regions and generally water deficient regions
EESD-1999-1.6.1	Water resources use and management
EESD-1999-1.6.2	Prevention and mitigation of saline water intrusion
EESD-1999-1.6.3	Technological development and management tools
EESD-1999-.2	<u>Key action Global Change, Climate and Biodiversity</u>
EESD-1999-2.1	To understand, detect, assess and predict global change processes
EESD-1999-2.1.1	Atmospheric composition change
EESD-1999-2.1.2	Stratospheric ozone depletion
EESD-1999-2.1.3	Climate change prediction and scenarios
EESD-1999-2.1.4	Climate variability and abrupt climate changes
EESD-1999-2.2	To foster better understanding of terrestrial (including freshwater) and marine ecosystems and their interactions
EESD-1999-2.2.1	Ecosystem vulnerability
EESD-1999-2.2.2	Interactions between ecosystems and the carbon and nitrogen cycles
EESD-1999-2.2.3	Assessing and conserving biodiversity
EESD-1999-2.3	Scenarios and strategies for responding to global issues
EESD-1999-2.3.1	Mitigation and adaptation to global change
EESD-1999-2.3.2	Reconciling the conservation of biodiversity with economic development
EESD-1999-2.3.3	Fighting land degradation and desertification
EESD-1999-2.3.4	Compatibility between EU and international environmental policies and links with trade
EESD-1999-2.4	European component of the global observing systems
EESD-1999-2.4.1	Better exploitation of existing data and adaptation of existing observing systems
EESD-1999-2.4.2	Development of new long-term observing capacity
EESD-1999-3	<u>Key action Sustainable Marine Ecosystems</u>
EESD-1999-3.1	Improved knowledge of marine processes, ecosystems and interactions
EESD-1999-3.1.1	Better assessment of naturally occurring mechanisms of ecosystem functioning
EESD-1999-3.1.2	Assessment of sedimentary systems for the sustainable management and use of the shelf, slope and deep-sea floor
EESD-1999-3.1.3	Transport pathways and impacts of pollutants, key elements and nutrients in the marine environment
EESD-1999-3.2	Reducing the anthropogenic impact on biodiversity and the sustainable functioning of marine ecosystems, and facilitating the development of safe, economic and sustainable exploitation technologies
EESD-1999-3.2.1	Reversing the trend in loss of marine biodiversity
EESD-1999-3.2.2	Reducing the effects of anthropogenic activities on the marine environment and recovering degraded marine systems
EESD-1999-3.2.3	Technologies for safe, sustainable and economic exploitation of marine resources
EESD-1999-3.3	Monitoring and managing coastal processes and the coastal zone
EESD-1999-3.3.1	Integrated studies on land-ocean interaction

- EESD-1999-3.3.2 Coastal zone changes
- EESD-1999-3.3.3 Coastal protection against flooding and erosion
- EESD-1999-3.3.4 Coastal processes monitoring
- EESD-1999-3.4 Operational forecasting of environmental constraints of offshore activities
- EESD-1999-4. Key action City of Tomorrow and Cultural Heritage
- EESD-1999-4.1 Sustainable city planning and rational resource management
 - EESD-1999-4.1.1 Improving urban governance and decision making
 - EESD-1999-4.1.2 Improving the quality of urban life
 - EESD-1999-4.1.3 Waste reduction and its life cycle management
 - EESD-1999-4.1.4 Economic development, competitiveness and employment
- EESD-1999-4.2 Protection, conservation and enhancement of European cultural heritage
 - EESD-1999-4.2.1 Improved damage assessment on cultural heritage
 - EESD-1999-4.2.2 Development of innovative conservation strategies
 - EESD-1999-4.2.3 Foster integration of cultural heritage in the urban setting
- EESD-1999-4.3 Development and demonstration of technologies for safe, economic, clean, effective and sustainable preservation, recovery, renovation, construction, dismantling and demolition of the built environment, in particular for large groups of buildings
 - EESD-1999-4.3.1 Revitalisation of city centres and neighbourhoods
- EESD-1999-4.4 Comparative assessment and cost effective implementation of strategies for sustainable transport systems in an urban environment
 - EESD-1999-4.4.1 Strategic approaches and methodologies in urban planning towards sustainable urban transport
 - EESD-1999-4.4.2 Comparative assessment and demonstration of new transport technologies and related infrastructure
- EESD-1999-7 RTD activities of a generic nature
- EESD-1999-7.1 The fight against major natural and technological hazards
- EESD-1999-7.2 The development of generic Earth observation satellite technologies
- EESD-1999-7.3 Socio-economic aspects of environmental change in the perspective of sustainable development
- EESD-1999-9 Support for research infrastructures

- Part B. Energy**
- EESD-1999-5 Key action Cleaner Energy Systems, including Renewable Energies
- EESD-1999-5.1 Large scale generation of electricity and/or heat with reduced CO₂ emissions from coal, biomass and other fuels, including combined heat and power
 - EESD-1999-5.1.1 Cleaner fuels by substitution and treatment
 - EESD-1999-5.1.2 More efficient energy conversion processes or cycles, including combustion efficiency
 - EESD-1999-5.1.3 More efficient gas turbines
 - EESD-1999-5.1.4 Optimisation of CHP systems
- EESD-1999-5.2 Development and demonstration, including for decentralised generation, of the main new and renewable energy sources, in particular, biomass, wind and solar technologies, and of fuel cells
 - EESD-1999-5.2.1 Biomass (including waste) conversion systems
 - EESD-1999-5.2.2 Wind energy optimisation
 - EESD-1999-5.2.3 Cost efficient photovoltaic
 - EESD-1999-5.2.4 Solar thermal concentrating systems
 - EESD-1999-5.2.5 Other renewable energies
 - EESD-1999-5.2.6 Efficient, reliable and cost effective fuel cell systems
- EESD-1999-5.3 Integration of new and renewable energy sources into energy systems
 - EESD-1999-5.3.1 Integrating renewable energy sources into the grid and stand alone systems
 - EESD-1999-5.3.2 Hybrid systems
 - EESD-1999-5.3.3 Improving the acceptability of renewables
- EESD-1999-5.4 Cost effective environmental abatement technologies for power production
 - EESD-1999-5.4.1 Reduction of local and global environment degrading emissions
- EESD-1999-6 Key action Economic and Efficient Energy for a Competitive Europe
- EESD-1999-6.1 Technologies for the rational and efficient end use of energy
 - EESD-1999-6.1.1 Spatial integration
 - EESD-1999-6.1.2 Building sustainability
 - EESD-1999-6.1.3 Efficient space heating, cooling, ventilation, lighting systems and domestic appliances, and integration of renewables into buildings

- EESD-1999-6.1.4 Transport combustion optimisation with cleaner hydrocarbon and alternative transport fuels
- EESD-1999-6.1.5 Hybrid and electric drivelines, and energy storage and conversion devices
- EESD-1999-6.1.6 Proving innovative public and private transport means
- EESD-1999-6.1.7 Efficient cross-sectoral technologies and better managed industrial processes
- EESD-1999-6.2. Technologies for the transmission and distribution of energy
- EESD-1999-6.2.1 Assuring electric power flow reliability and stability and increasing power line efficiency
- EESD-1999-6.2.2 Interconnection and load shaping
- EESD-1999-6.2.3 More efficient and safer transport of gas
- EESD-1999-6.2.4 Cost effective heating and cooling distribution
- EESD-1999-6.3 Technologies for the storage of energy on both macro and micro scale
- EESD-1999-6.3.1 Optimising power quality, by means of energy storage, for stand-alone renewable and hybrid systems and for transport
- EESD-1999-6.3.2 Stability related electrical energy storage
- EESD-1999-6.3.3 Intermittent storage of energy, including heat and cold storage
- EESD-1999-6.3.4 Safer, lighter and more energy-efficient gas storage
- EESD-1999-6.3.5 Reliable high capacity microstorage
- EESD-1999-6.4 More efficient exploration, extraction and production technologies for hydrocarbons
- EESD-1999-6.4.1 Cost effective and more efficient exploration and production of hydrocarbons
- EESD-1999-6.4.2 Deepwaters, marginal fields and new frontiers, including Arctic
- EESD-1999-6.4.3 Reduced environmental impact and improved safety in exploration and production
- EESD-1999-6.5 Improving the efficiency of new and renewable energy sources
- EESD-1999-6.5.1 Cost effective wind turbine components
- EESD-1999-6.5.2 Cost effective components for photovoltaic module systems and solar thermal concentrating systems
- EESD-1999-6.5.3 Cost effective components for biomass and waste
- EESD-1999-6.5.4 Other renewable energy sources
- EESD-1999-6.6 The elaboration of scenarios on supply and demand technologies in economy/environment/energy (E3) systems and their interactions, and the analysis of the cost effectiveness (based on whole life costs) and efficiency of all energy sources
- EESD-1999-6.6.1 Technological change anticipation
- EESD-1999-6.6.2 Prospective and policy impact analysis
- EESD-1999-6.6.3 Market changes and technology absorption
- EESD-1999-8 RTD activities of a generic nature
- EESD-1999-8.1 Socio Economic aspects of energy within the perspective of sustainable development: Tools for technology assessment
- EESD-1999-8.1.1 Acceptability and choices
- EESD-1999-8.1.2 Innovation
- EESD-1999-8.1.3 Externalities
- EESD-1999-8.2 Socio Economic aspects of energy within the perspective of sustainable development: Methodologies for global systems analysis
- EESD-1999-8.2.1 Economy-environment-energy modelling framework
- EESD-1999-8.2.2 Matching technology implementing potentials

1.2. Second activity

INCO. Confirming the International Role of Community Research

- INCO-1999-1 Co-operation with certain categories of third countries
- INCO-1999-1.1 States in the pre-accession phase
- INCO-1999-1.2 NIS and CEECs not in the pre-accession phase
- INCO-1999-1.3 Mediterranean partner countries
- INCO-1999-1.4 Research for development
- INCO-1999-1.5 Emerging economies and industrialised countries
- INCO-1999-2 Training for researchers
- INCO-1999-3 Co-ordination

1.3.	<i>Third activity</i>
IPS.	Promotion of Innovation and Encouragement of SME Participation
IPS-1999-1	<u>Promotion of Innovation</u>
IPS-1999-1.1	Studies and Good Practices
IPS-1999-1.2	New approaches to technology transfer
IPS-1999-2	<u>Encouraging SME participation</u>
IPS-1999-2.1	A single complementary entry point
IPS-1999-2.2	Joint support and assistance instruments
IPS-1999-2.3	Economic and technological intelligence
IPS-1999-3	<u>Joint Innovation/SME activities</u>
IPS-1999-3.1	European support network for the promotion of research, technology transfer and innovation
IPS-1999-3.2	Electronic information services and other means of dissemination
IPS-1999-3.3	Intellectual property
IPS-1999-3.4	Access to private innovation financing
IPS-1999-3.5	Mechanisms to facilitate the setting-up and development of innovative firms
IPS-1999-4	<u>Co-ordination and support activities</u>
IPS-1999-4.1	Support activities relating to Innovation
IPS-1999-4.2	Support activities relating to SME Participation

1.4.	<i>Fourth activity</i>
IHP.	Improving the Human Research Potential & the Socio-Economic Knowledge Base
IHP-1999-1	<u>Training and Mobility of Researchers</u>
IHP-1999-1.1	Research Training Networks
IHP-1999-1.2	Marie Curie Fellowships
IHP-1999-2	<u>Access to Research Infrastructures</u>
IHP-1999-3	<u>Promotion of S/T Excellence</u>
IHP-1999-3.1	High-level Scientific Conferences
IHP-1999-3.2	Distinctions for high-level research work
IHP-1999-3.3	Raising Public Awareness
IHP-1999-4	<u>Key action Socio-Economic Knowledge Base</u>
IHP-1999-5	<u>Development of S/T Policies</u>
IHP-1999-5.1	Strategic Analysis of Specific Political Issues
IHP-1999-5.2	Common Basis of Science, Technology and Innovation
IHP-1999-6	<u>Accompanying measures for the programme</u>
IHP-1999-7	<u>Indicative breakdown of funds for the programme</u>
IHP-1999-8	<u>Indicative timetable for the programme</u>

2. Euratom Framework Programme

NUC	<i>Nuclear Energy</i>
NUC-1999-1	<u>Key action Controlled Thermonuclear Fusion</u>
NUC-1999-1.1	Fusion physics (theoretical, modelling and experimental work), physics of production, fuelling, heating and confinement of fusion plasmas, and of particle and energy removal.
NUC-1999-1.2	Physics and technology of higher-power plasma heating systems (using high frequency waves or neutral particles, non-inductive plasma current drive methods, and plasma fuelling and exhaust systems).
NUC-1999-1.3	Advanced plasma diagnostics, data acquisition, exploitation and interpretation.
NUC-1999-1.4	Technologies for a future experimental reactor (including e.g. superconductors, remote handling).
NUC-1999-1.5	Long-term technology R&D (including e.g. low-activation materials, tritium breeding blankets, safety and environmental aspects, conceptual reactor reference design studies).
NUC-1999-1.6	Analysis of Socio-economic aspects of fusion
NUC-1999-2	<u>Key action Nuclear Fission</u>

NUC-1999-2.1	Operational safety of existing installations
NUC-1999-2.2	Safety of the fuel cycle
NUC-1999-2.3	Safety and efficiency of future systems
NUC-1999-2.4	Radiation protection
NUC-1999-3	<u>RTD activities of a generic nature</u>
NUC-1999-3.1	Radiation protection and health
NUC-1999-3.2	Environmental transfer of radioactive material
NUC-1999-3.3	Industrial and medical uses and natural sources of radiation
NUC-1999-3.4	Internal and external dosimetry
NUC-1999-4	<u>Support for research infrastructures</u>